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ABSTRACT

A study was conducted to determine if pregnant women read to their unborn child. A randomly selected sample of 47 pregnant women in the Toms River, New Jersey area between the ages of 20 and 35, visiting their obstetricians' offices for monthly checkups were chosen for the study. A questionnaire was administered to mothers in the waiting room regarding their practices, if any, in encouraging language development prenatally. Results indicated that 89% of the mothers surveyed do encourage language development by reading, singing, and talking to their fetus. These mothers feel that reading to their unborn child is an important daily routine to be carried out by both the mother and the father. Eleven percent of the mothers indicated that they do not read to their fetus because they feel there is no need to do so. (One appendix containing the questionnaire used is attached.) (Author/MG)

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PRENATAL INFLUENCES
THE MOTHERS WHO READ TO THEIR CHILDREN PRENATALLY

by
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Submitted in fulfillment for the requirement of the Master of Arts Degree

Kean College of New Jersey
December 1989

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ABSTRACT

The purpose of this study was to determine if pregnant women read to their unborn child? A randomly selected sample of forty-seven pregnant women visiting their Obstetricians' offices for monthly checkups were chosen for this study. A questionnaire was administered to mothers in the waiting room regarding their practices, if any, in encouraging language development prenatally. This study proved that 89% of mothers surveyed, do in fact, encourage language development by reading, singing, and talking to their fetus. These mothers feel that reading to their unborn child is an important daily routine to be carried out by both the mother and the father. Eleven percent of the mothers indicated that they do not read to their fetus, because, they feel there is no need to do so.

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THE MOTHERS WHO READ TO THEIR CHILDREN PRENATALLY

What are pregnant women doing during their pregnancy to encourage language development of their unborn child? Will prenatal influences such as reading, singing, and talking to the fetus be practiced by mothers?

The importance of language development for effective reading has been recognized for years. The question arises, at what age does one encourage language development? Tests have been proven that the (prenatal) baby is sensitive to sound at twenty-eight weeks, and its reactions are numerous. (Schwartz, 1980). The pregnant abdomen and uterus are very noisy places. His mother's stomach rumblings are the loudest sounds he hears. Her voice, his father's voice, and other occasional noises are quieter, but still audible to him. (Verny, 1981). Sounds from outside the womb, which comprise a mother's daily activity, affect the unborn every moment. Therefore, prenatal experiences may well be patterned in part by mundane things like motion pictures, the sound and vibrations of television, voices in family arguments, as well as sonic booms, roaring airplanes and the complex hubbub of the city. (Schwartz, 1980). Parents need to be informed of these facts, to encourage language development activities. Reading, singing, and talking to the unborn child has been proposed as one technique to encourage language development.

Peter F. Oswald, a professor of psychiatry at San Francisco's Langley Porter Psychiatric Institute, believes the brain mechanism for musical development may be activated when the baby is still in the womb. If this is so, then why not encourage music? Mothers should sing to their unborn child as often as possible. If the mechanism for music development may be activated during fetal development it is also possible that language development is activated as well. Therefore,

why not read to the unborn child? Reading plays a major role in language development. Why not encourage this development prenatally?

"Early exposure to language tends to produce children who talk sooner and seem more self-confident." (Hodson, 1988) Prenatal reading may be a key that will open the door of early language development. "Van de Carr maintains that fetuses not only can hear what's going on ex utero, they can be taught to understand it. Van de Carr also advocates playing classical music, claiming fetuses who hear a work in the womb remember it." (Newsweek, 1987) This may also hold true regarding prenatal influences. "Prenatal experience plays an important role in the continuum of life." (Salk, 1987) If reading can be encouraged for future language development prenatally, why not do it? The reasons for not doing so may vary. Is it lack of parental knowledge? Do parents "read up" on the latest developments of language? Do parents realize the importance of prenatal influences?

"Some of the most recent work on the learning capabilities of the fetus comes from University of North Carolina psychologist Anthony DeCasper and colleagues, who have investigated what a fetus hears and subsequently recognizes." (Psychology Today,1987) "Pursuing the idea that infants might be able to recognize something they had heard prenatally, DeCasper asked pregnant women to read a children's story aloud twice a week for approximately six weeks prior to their delivery date. When the babies were born their sucking patterns indicated they preferred the familiar story over another children's book they had never heard before." (Psychology Today, 1987)

"The womb is one of nature's finest creations. It is an environment of intricate and delicate processes that miraculously coalesce into life. Our time in the womb should be the softest, most nurturing, most protected time of our lives. It should be idyllic. It should be life-ensuring, for every fiber and cell of the womb is geared for supporting, shaping and sustaining

life. (Janov, 1983)

In Ashley Montagu's book titled, Life Before Birth, she states, "Birth is not a beginning ... the true beginning is at conception. Nor is birth an ending. It is more nearly a bridge between two stages of life, and although the bridge is not a long one, a child crosses it slowly, so that his body may be ready when he steps off at the far end."

Webster's New World Dictionary defines nurture as to feed, train, educate and rear. Webster also defines support as to encourage and help. In these words, reading is used and interpreted by the reader. The interpretation of Janov's quote may mean to support and nurture reading as soon as possible.

Prenatal care includes nutrition, physical fitness and positive mental health free from stress. Positive mental health is a general feeling of well being for both the mother and therefore the unborn child. Reading may be one outlet to encourage such a feeling. Why not use reading as an excuse for "winding down" and to possibly encourage language development in the unborn child?

HYPOTHESIS

To provide additional evidence concerning this topic, the following study was conducted. The hypothesis was that women do not encourage language development of their unborn child in a systematic fashion.

PROCEDURES

Various Obstetrician offices, throughout the Toms River area were selected as a place to sample pregnant women. The women visiting the doctors offices were chosen arbitrarily. Pregnant women were asked to "take a few minutes" to complete a questionnaire on prenatal influences. Some of the data collected was mailed in by those unable to participate in the office area.

The majority of women who were "interviewed" were predominantly white. Their age span averaged between twenty to thirty-five. However, some mothers were in their forties.

The study reflects only a sample selection of pregnant women who are in the Toms River area. It was assumed that the mothers were of similar prenatal experience or education and had similar characteristics which were representative of a suburban community with a middle class socio-economic population.

RESULTS

The questionnaire indicated that out of the forty-seven pregnant women who replied, forty-two indicated that they do read to their fetus.

Question number one indicated - Yes - 42
- No - 5

Question number two indicated - constant talking all day
- singing/reading whenever possible

Question number three indicated - Yes - 42
- voice recognition
- familiarity and comfort to surroundings
- music calms the baby
- stimulation

Question number four indicated - between the ages 20 - 43

CONCLUSIONS / IMPLICATIONS

The null hypothesis that pregnant women do not encourage language development of their unborn child in a systematic fashion was rejected since there were indications that pregnant women do, in fact, read to their unborn child.

The pregnant women involved in this study informed me of their knowledge regarding prenatal experiences with unborn children. They stated that they were educated by television programs, magazine articles, newspaper articles and books on this topic. Overall, pregnant women seem concerned and knowledgeable about their child's development. Women who are pregnant are consiously trying to positively encourage language development as early in life as prenatally. It appears that pregnant women, between the ages of twenty to forty, are talking, singing, and reading to their unborn baby to communicate with their young child and perhaps to promote later development of language.

Future studies should be researched regarding prenatal experiences with a lower socio-economic range. Also, an urban area may be suggested. This could indicate a correlation between the two, if any?

PRENATAL MEMORY:

Related Research

"Today we know that from the sixth month of pregnancy onward, and especially from the eighth month, memory templates in the fetus are laid down that follow recognizable patterns. By then, the child's brain and nervous system are developed sufficiently to make this possible, and in fact that memories retrieved from this period have a recognizable shape and form tends to confirm the notion that the brain is operating near normal adult levels by the third trimester." (Verny, 1981, p.185-186)

The fact that memory functions, to the extent of people recounting their birth is fascinating and true. Verny cites many such examples throughout his book, The Secret Life of the Unborn Child.

The question arises - Can the unborn child remember, not only birth experiences, but language development influences? These influences may include story reading aloud done by the mother, conversations between the mother and her unborn child, and even conversations between the mother and the father. Studies suggest that this may all be possible and that more research needs to be done in this area of memory development.

"The fetus is a tiny, developing human being. That it responds to all manner of input and is capable of coding and storing that input as memory is not commonly recognized." (Janov, 1983, p.292) However, recent findings suggest such coding and storing exists.

"What is clear is that even primitive cells react to stimuli, and code and store information." (Janov, 1983, p.292) Experiments have been conducted involving prenatal birth trauma experiences and the rememberance of such happenings by clinical patients.

An example of such an occurence is stated in Verny's book, The Secret Life of the Unborn Child: "In a recent book, Czechoslovakian psychiatrist Stanislav Grof tells how one man, under medication, portrayed his fetal body very accurately - how large his head was in comparison to his legs and arms - what it felt like to be in warm amniotic fluid, and to be attached to his placenta. Then, while describing his heart sounds and those of his mother, he suddenly broke off midway and announced he could hear muffled noises outside the womb - the laughter and yelling of human voices and the tiny blast of carnival trumpets. Just as suddenly and inexplicably, the man declared he was about to be delivered." The mother was later contacted, "who not only confirmed the details of her son's story, but added that it was the excitement of a carnival that precipitated his birth. She had deliberately kept her visit to the carnival secret all these years because she had been warned by her mother that such a thing might happen if she went. How, she wondered had the doctor learned of her visit?" (Verny, 1981, p.42-43)

"On some level all emotional conflicts grow out of memories, whether the recollections are conscious ones or, as, is more often the case, unconscious." (Verny, 1981, p.67) "All of us have lost memories that from their hiding place - the unconscious - can exert a powerful influence over our lives." (Verny, 1981, p.67) Language may play an important role here. If the mother reads to her unborn child, this may create a happy memory for the child later in life, a positive experience of language developement created in the womb saved/stored for future use. What better way is there to get a head start on positive language development before the starting gate opens?

"Dr. Henry Truby says that babies overhear their mother's conversations from within the womb. Truby suggests that the linguistic environment of the last few months influences

infant speech and language in childhood." (Schwartz, 1980, p.71) It appears that these prenatal experiences carry over into childhood and then adulthood. Why wait for this to just happen when it could possibly be encouraged sooner? The need to encourage positive language development prenatally needs to be emphasized as much as possible. The fact that such phenomenal wonders can happen are amazing and should not be overlooked!

"Birth and prenatal experiences form the foundations of human personality. Everything we become or hope to become, our relationships with ourselves, our parents, our friends - all are influenced by what happens to us in these two critical periods." (Verny, 1981, p.118)

"The unconscious memory of the maternal heartbeat in utero appears to be why a baby is comforted by being held to someone's chest or is lulled to sleep by the steady ticking of a clock, and why adults in a busy office are rarely distracted by the rhythmic clacking of typewriters or the steady hum of an air conditioner." (Verny, 1981, p.38) This may also hold true for reading/language development. If a mother reads a nursery rhyme or poetry during pregnancy, studies suggest that the infant will more readily respond to that stimulus versus any other.

Studies prove that such memory and language do exist prenatally. If it's possible to encourage language prenatally; and it's been suggested that it may through various studies of memory, then why wait until the child is born? Encouraging such needed aspects to survive as a functioning human being should be reason enough for such encouragement.

One account between a psychologist and a patient who regressed with the help of drug therapy, stated the following: "I am a sphere, a ball, a balloon, I am hollow, I have no arms, no legs, no teeth. I don't feel myself to have a front or back, up or down. I float, I fly, I spin. Sensations come

from everywhere. It is as though I am a spherical eye." (Verny, 1981, p.190) This suggests that there is such a "thing" as memory before birth during the earliest stages of development!

"Again and again I have been amazed at the power which painful memories from infancy seem to have in adult experience." (Seamands, 1985, p.17) Throughout Seamands' book titled, Healing of Memories, he provides examples of adults current problems going back to prenatal trauma. Seamands states, "Slowly but surely, I have been forced to abandon my skepticism and in several instances have had to pray for the healing of some memories which could only have begun before birth." (Seamands, 1985, p.17)

"Time magazine of August 15, 1983 carried a cover story on "Babies, What Do They Know? When Do They Know It?" Reporting on hundreds of medical and behavioral experiments being conducted in the United States, France, Australia, as well as in other parts of the world." (Seamands, 1985, p.19) The article posed the following questions: "What do newborn children know when they emerge into this world? And how do they begin organizing and using that knowledge during the first years of life" (Seamands, 1985, p.19) The basic answer is as follows: "Babies know a lot more than most people used to think. They see more, hear more, understand more, and are genetically prewired to make friends with any adult who cares for them." (Seamands, 1985, p.19) This only proves that an infant is actively involved in its development "Long before the infant can speak." (Seamands, 1985, p.20) The infant is thinking, learning and most importantly - remembering!

"The Time article states, "The search for data is being steadily pushed back from childhood to the earliest infancy

and even before birth!" (Seamands, 1985, p.20)

Dr. Thomas Verny also states in his book, The Secret Life of the Unborn Child the following conclusion: "The first thin slivers of memory track begin streaking across the fetal brain sometime in the third trimester, though exactly when is hard to pinpoint. Some investigators claim a child can remember from the sixth month on; others argue the brain does not require powers of recall until the eighth month. There is, however, no question that the unborn child remembers or that he retains his memories...We can safely deduce that certainly from the sixth month after conception his central nervous system is capable of receiving, processing, and encoding messages. Neurological memory is most assuredly present at the beginning of the last trimester, when most babies, if born, can survive with the help of incubators." (Seamands, 1985, p.20-21) Dr. Verny documents his claims with plenty of interesting illustrations of both prenatal and very early infant memories.

"We should be careful not to over emphasize the area of prenatal awareness, for our knowledge of it is still very sketchy." (Seamands, 1985, p.22) Much more research needs to be done in this field of study.

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APPENDIX

Questionnaire administered to pregnant women waiting in the waiting area of their Obstetricians' offices.

1. Do you do any of the following activities with your unborn child regularly? Talking, singing, or reading?

2. How often do you do the above activities with your unborn child?

3. Do you believe these activities to be helpful to your child after birth? How?

4. What is your age?